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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/992,948	11/05/2001	Yasunori Tsukioka	2271/65903	9151

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EXAMINER	
QIN, YIXING	

ART UNIT	PAPER NUMBER
2622	

DATE MAILED: 08/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/992,948	TSUKIOKA, YASUNORI	
	Examiner	Art Unit	
	Yixing Qin	2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 November 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 November 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

I. Claims 1, 2, 6, 7, 9, 10, 14, 15, 17, 18, 22, 23, 25, and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over the applicant's admitted prior art in the specification ("background"), and in view of McVey et al (U.S. Patent No. 6,108,100 – "McVey").

1. **Claims 1, 9, 17, 25, 29**
   - The background discloses in page 1, lines 13-17 that multifunction devices are known to have image memory areas for both copier and facsimile functions. It would be obvious to one of ordinary skill to use one basic memory to store information of both copier and facsimile functions since it reduces cost (from having two memories – one for each function).
   - The background discloses in page 2, lines 18-21 that multifunction devices are known to be able to have expansion memories added on. This inherently means there has to be some sort of connection from the multifunction device to an expansion memory (i.e. **a socket**).
   - The background, however, does not go into detail about the mapping of the memories. The secondary reference, McVey, discloses in column 4, lines 56-61 that "[t]he memory controller 30 provides for dynamically changing the address map even while code is executing. This capability allows copying executable code to a new memory resource, namely an expansion memory unit 34, and then executing the code from the new memory resource without any address translations." This indicates that there is a **first address map** before an expansion memory is inserted and an re-arrangement (i.e. dynamic change) of the mapping to a **second memory map** when the expansion memory is attached (i.e. by copying execution code). One skilled in the art understands that additional memory expands the available area to use for processing (i.e. analogous to adding more RAM to a computer for faster performance).
   - Also see column 5, lines 12-18 and Figs. 9 and 10 and column 8, lines 30-42.

- As mentioned above, the multifunction machine of the prior art contains memory for both copying and facsimile, and would be obvious to one of ordinary skill to copy both functionalities to the expansion memory, since McVey suggests the copying of code from the ROM to the expansion memory.
- McVey further discloses in column 3, lines 7-16 the motivation for the expansion memory in his device. Both references are in the art of using expansion memory for increased performance. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to have a controller that performs the re-mapping of memories when additional memory is available for use. The motivation would be to increase performance by having a greater memory area to work with.

2. **Claims 6, 14, 22, 28, 30**
- Claim 6 is similar to claim 1 above, except that the facsimile function is optional. The background already mentions that a copy and facsimile function can be implemented in memory (i.e. **basic memory**). This indicates that a facsimile function can be allocated within the memory irregardless of whether an expansion memory is connected (which obviously means that the facsimile function can be implemented when the expansion memory is connected).
- The Examiner does understand that claims 29 and 30 are directed to the automatic detection of the expansion memory. The McVey reference discloses in column 1, lines 62-67 and column 2, lines 1-2 that an apparatus is known to have automatic selection of a mode when an external memory cartridge is inserted. Also, the use of Plug n' Play devices (which has automatic detection) are well known in the computing world.

3. **Claims 2, 7, 10, 15, 18, 23**
- McVey discloses in column 1, lines 30-48 a prior art solution to increasing performance. Lines 46-47 discloses the use of a battery backup.
- As mentioned above, the McVey reference discloses the copying of code form the printer's ROM to the expansion memory. This indicates that everything is still in the ROM (i.e. **basic memory**) when the expansion memory is attached.

II. Claims 3-5, 8, 11-13, 16, 19-21, 24, 26 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over the applicant's admitted prior art in the specification ("background"), in view of McVey et al (U.S. Patent No. 6,108,100 – "McVey") and further in view of Wakabayashi et al (U.S. Patent No. 5,461,704 – "Wakabayashi")

4. **Claims 3, 11, 19, 26**
   - Neither the background nor McVey goes into detail about the restoration of the memory map to a first state when the expansion memory is removed. The tertiary reference, Wakabayashi discloses in column 29, lines 33-46 that the settings of a printer can be easily restored when a cartridge (i.e. expansion memory) is removed. One skilled in the art would understand that having different settings can lead to having different address maps (i.e. **first and second memory maps**).

5. **Claims 4, 5, 12, 13, 20, 21, 27**
   - While the background nor McVey explicitly discloses that a warning message is shown to indicate to the user that an expansion memory is present or not, the use of messages for displaying information is well known. McVey discloses in column 5, lines 3-5 that a message can be displayed to the user to let the user know that initialization is taking place. Also one skilled in the art knows that when plug and play devices are connected, messages are usually shown to the user indicating the connection (or disconnection) of such a device. Thus, it would be obvious to one of ordinary skill to use messages.

6. **Claims 8, 16, 24**
   - Although not explicitly disclosed, the allocation of memory size by an user is well-known.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yixing Qin whose telephone number is (571)272-7381. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Coles can be reached on (571)272-7402. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

YQ

JOSEPH R. POKRZYWA
PRIMARY EXAMINER
ART UNIT 2622